



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,148	03/23/2004	Michio Miura	025720-00025	1983

7590 01/18/2007
ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
Suite 400
1050 Connecticut Avenue, N.W.
Washington, DC 20036-5339

EXAMINER

TUGBANG, ANTHONY D

ART UNIT	PAPER NUMBER
----------	--------------

3729

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/806,148

Applicant(s)

MIURA ET AL.

Examiner

A. Dexter Tugbang

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 3-7 and 9-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,8,18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :11/4/05, 7/20/05, 5/18/05, 3/23/04.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species A, Claim 2, in the reply filed on November 20, 2006 is acknowledged.
2. Claims 3 through 7 and 9 through 17 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on November 20, 2006.

NOTE: Claims 18 and 19 will be examined along with Claims 1, 2 and 8, as there would be no burdensome search to examine Claims 18 and 19.

Claim Objections

3. Claim 1 is objected to because of the following informalities: the term "comb-like" (line 3) should be changed to --comb-shaped--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ramakrishnan et al 5,626,728.

Ramakrishnan discloses a method of making a surface acoustic wave (SAW) device that comprises: activating a joining surface of a supporting substrate (e.g. 12) with an activation process of sputtering that includes oxygen and air (col. 3, lines 23-51); and joining surfaces of the piezoelectric substrate (e.g. 18) and the supporting substrate to face each other (see Fig. 1).

With respect to the process steps being drawn to a SAW filter that includes comb shaped electrodes, electrode pads, and wiring patterns, these limitations are recited in the preamble of the claims and are intended use limitations and have not been given patentable weight since the body of the claims do not depend upon the preamble for completeness and the process steps are able to stand alone. *In re Hirao*, 535 F.2d 67 190 USPQ 15 (CCPA 1976).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2 and 8, alternatively, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramakrishnan et al in view of Yuhara et al 4,775,814.

If applicant(s) believe that the preamble of the claims are in some way further limiting, then Yuhara shows that it is conventional and well known for SAW devices to include comb shaped electrodes, electrode pads, and wiring patterns (see Fig. 1) to allow the SAW device to electrically operate and function.

Art Unit: 3729

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Ramakrishnan by including at least the electrode pads and wiring patterns, as taught by Yuhara, to positively allow operation of the SAW device.

8. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramakrishnan et al in view of Yuhara et al, as applied to claim 1 above, and further in view of Russell et al 5,895,629.

Ramakrishnan, as modified by Yuhara, shows a supporting substrate that is at least formed of silicon. However, the modified Ramakrishnan method does not mention that the supporting substrate can be formed of either a SOS substrate or an SOI substrate.

However, Russell teaches that it is conventional for supporting substrates to be formed of either SOS or SOI for several advantages: 1) to provide lower manufacturing costs (col. 6, lines 60-62), 2) to support piezoelectric materials (col. 6, lines 47-54), and 3) to allow the device to operate at high temperatures (col. 4, lines 32-37).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the support substrate of Ramakrishnan by forming it of either SOS or SOI materials, as taught by Russell, for anyone of the associated advantages.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

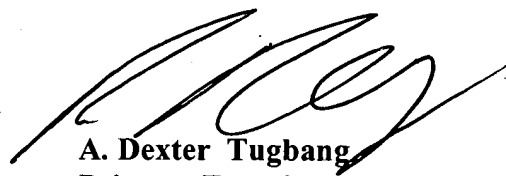
Art Unit: 3729

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570.

The examiner can normally be reached on Monday - Friday 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



A. Dexter Tugbang
Primary Examiner
Art Unit 3729

January 8, 2007